REMARKS

The undersigned wishes to thank the Examiner for the productive telephone interview held on April 12, 2007. During the interview, the Examiner requested the following:

(i) element 25 previously added in revised Figure 1 submitted with the December 6, 2006 amendment now be removed from the drawings;

(ii) the reference to element 25 added to the specification in the December 6, 2006 amendment now be deleted from the specification;

(iii) the term "continuous" be added to the claims to better define the lamina of light;

(iv) the term "a light source" be added to claims 1 and 28; and

(v) various amendments to clarify claims 2, 8, 12, 13, 32 and 37.

In response thereto, the Applicant has amended the specification, drawings, and claims 1-16, 18-25 and 27-38. Claims 1-38 remain at issue.

The Specification

Per the Examiner's request, the reference to element 25, previously added in the December 6, 2006 amendment, has now been removed from the specification.

35 USC 112, First Paragraph Rejections

In the Final Office Action dated January 31, 2007, the Examiner rejected claims 8, 11 and 36 under 35 USC 112, first paragraph.

The subject matter of claim 8 is fully supported by the specification. See specifically paragraph [0018] which recites the light is derived from an "***incandescent source***", having "***a specific wavelength range***" from "*350*" to "1100" nanometers, and which substantially ***matches the wavelength profile of X and Y receiving elements 20, 22***. Furthermore, paragraph [0016] recites that the light source can be an "***LED***" or "***VCSEL***". Claim 8 is therefore fully supported. The Applicant requests that this rejection be withdrawn.

Claims 11 and 36 have been amended to change "filter device" to "subtraction device." Both claims now recite "***a subtraction device configured to subtract the measured ambient light during an off cycle of the substantially continuous lamina of light from the measured light during an on cycle of the lamina of light***". The subtraction feature is fully described in paragraph [0020], which is reproduced below.

> The light sources, regardless of the type, may also be operated either continuously or periodically, using on an on/off cycle. An on/off cycle conserves power, minimizes the heat generated by the source light, and permits temporal filtering to reduce noise, such as lock in detection. During the off cycle, the X light receiving array 20 and a Y light receiving array 22 measure the passive or "dark" light (noise). The dark light measurement is then ***subtracted*** from the active light detected during the on cycle. The subtraction thus filters out DC background caused by the ambient light. During each off cycle, the passive light may also be calibrated, permitting the system to adjust to changing ambient light patterns. (bold and italic added for emphasis)

The bold and italic portions of Paragraph [0019] clearly support claims 11 and 36. The Applicant requests that this rejection be withdrawn. It would be obvious to one skilled in the art that the subtraction is performed in the processor 24.

The Art Rejection

During the interview, the Examiner indicated that he wanted to review the Graham reference (US Patent 5,914,709) to be assured that it does not teach a lamina of light. The undersigned believes that the Graham reference teaches an optical input device that relies exclusively on a grid of light. See for example the following specific teachings in the Graham reference:

i. the Abstract which describes a grid of light created from a waveguides;

ii. Figure 1 shows a plurality of light beams 106 generated by collimating lenses 116. See column 4, lines 13-16 and 39-41;

iii. Figure 3 shows an input device 300 that generates parallel light beams. See Column 5, lines 25-28;

iv. Figure 4 shows another input device 400 with waveguides 410 and 412 that generate horizontal 418 and vertical 420 beams of light. See column 6, lines 28-64;

v. Figure 5 shows two waveguides 502 and 504 configured to generate and receive parallel beams of light 508. See column 7, lines 57-67 and column 8 lines 1-9;

vi. Figures 6A and 6B show cross sections of the waveguides 502/504 of Figure 5. See column 8, lines 11-15;

vii. Figure 6E shows a flared output waveguide to reduce "*diffractive spreading*" of the light. See column 9, lines 38-47;

viii. Figures 10B and 10C show beams of collimated light. See column 13, lines 14-23; and

ix. Figures 11A and 11B show collimated beams of light 1106. See column 13, lines 28-34.

Based on the above specific teachings, it is believed that Graham is limited to a grid of light.

The Double Patenting Rejection

In the event the Examiner indicates that the subject application contains allowable claims, a terminal disclaimer will be filed.

Applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
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